

Technical Datasheet

OPTOCAST

AC-3717

OPTOCAST AC-3717 is a 100% solids, one component acrylate based laminating adhesive for glass, aluminum and various polymeric substrates. It is cured to a hard solid upon exposure to UV light from 320-390 nm wavelength range. It will also cure with heat above 125°C.

Properties Uncured

Color	Clear
Viscosity	15,000-20,000 cps
Pot Life at 25°C	21 days
Shelf Life at 5°C or less	6 months

Properties Cured

Color	Clear
Hardness	75 Rex D
Tg	80°C
Liquid Refractive Index	1.48-1.49
CTE	~60-65 ppm/°C
Elongation	~10%

Cure Profile

OPTOCAST AC-3717 can be cured with UV light wavelengths from 320 to 390 nm. Surfaces exposed to air may remain tacky.

- ◆ Minimum light intensity using a spot cure is 500 mW/cm². Minimum light intensity using a flood cure is 40 mW/cm².
- ◆ Minimum light cure times start at 2-3 seconds.
- ◆ Minimum heat cure temperature is 125°C. Minimum heat cure time is 5 minutes.
- ◆ Always wear proper eye protection when working with UV light.

Handling and Storage

OPTOCAST AC-3717 is shipped and stored frozen to prolong shelf life.

- ◆ Pot life at 25°C is 21 days.
- ◆ Shelf life at 5°C or less is 6 months.
- ◆ Allow syringes to thaw completely to 25°C before using. Replace back cap when refreezing.
- ◆ Syringes may be refrozen 5 times.

Shipping and Unpacking Procedure

This material is packed and shipped in dry ice at -75°C. It is a stable material but should be refrigerated at 5°C or less upon receipt.

- ◆ It is critical that the shipping container is not opened in transit and is expedited to its final destination.
- ◆ DO NOT ALLOW THE SHIPMENT TO BE LEFT ON LOADING DOCKS, IN CUSTOMS WAREHOUSES, OR ON FREIGHT TRUCKS FOR EXTENDED TIME PERIODS.
- ◆ Maintaining temperature at 5°C or less upon receipt is critical to maintain the functionality and performance of the material.
- ◆ Failure to maintain these temperatures will void any warranties and will adversely affect the materials performance.
- ◆ Upon receipt, the syringes should be transferred from the shipping container to a freezer at 5°C or less.
- ◆ Care must be taken during this step as a sudden increase in temperature can cause irreversible air voids due to the thermal expansion of the syringe barrels.

Storage and Thawing

Prior to application, the material must be allowed to thaw naturally to room temperature (ideally 20-25°C) by placing the syringes in a vertical position with dispense tip facing downward. This is a critical step for obtaining optimum dispensing performance.

- ◆ Under no circumstance should artificial heat sources be used to increase thaw speed.
- ◆ Do not place the syringes in, or near, any heat source including ovens, hot plates, hot air guns, etc. to speed thawing.
- ◆ Thaw time varies by package style, size, and ambient temperature, but is typically 30 to 120 minutes.
- ◆ Do not attempt to dispense the material before it reaches ambient temperature.
- ◆ Wipe all excess moisture or condensation from the syringes prior to use.
- ◆ A small amount of air in the tip area is normal. Carefully remove the tip cap and manually extrude a small amount of material. This will displace any air that may be in the tip area.
- ◆ A small amount of air may accumulate at the rear of the syringe near the piston. This is also normal and this air can easily be removed by manually placing a light amount of pressure on the piston near the location of the visible air with the tip cap in place. This will force the air to by-pass the piston and exit the rear of the syringe. Mount the syringe onto the dispense equipment and purge material through the system until an unbroken flow of material is extruded.

IMPORTANT NOTICE

Good housekeeping rules are always important. Provide ample ventilation in all areas of handling, and use. Avoid prolonged breathing of possible fumes. Minimize skin contact. Use of goggles, rubber gloves, and protective creams is recommended. Always wash exposed areas immediately using warm water and soap followed by rinsing with clear water. If material comes in contact with eyes, flush with clear water for fifteen minutes and consult a physician immediately.

All data in this bulletin are based on our own research and the research of others. They are believed to be accurate. However, no guarantee of accuracy is made. Product description is sold without warranty except conformity to specification and on condition that the purchasers shall determine suitability for their particular purpose.